

CLAIMS

1. A method for producing a packaging cell for preparing a system for producing an EB virus vector without viral replication ability, comprising the steps of:

- 5 introducing a gene fragment for homologous recombination lacking a packaging signal into Akata cell, thereby deleting packaging signals of EB virus by homologous recombination, and
cloning a packaging cell carrying an EB virus genome lacking a packaging signal, but not carrying a wild type EB virus genome having packaging signals.

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2. A method for producing a packaging cell for preparing a system for producing an EB virus vector without viral replication ability, comprising the steps of:

- preparing an EB virus genome lacking a packaging signal by the use of *E. coli*,
introducing the EB virus genome into an EB virus-positive Akata cell, and
15 cloning a packaging cell carrying an EB virus genome lacking a packaging signal, but not carrying a wild type EB virus genome having packaging signals.

3. A method for producing a packaging cell for preparing a system for producing an EB virus vector without viral replication ability, comprising the steps of:

- 20 preparing an EB virus genome lacking a packaging signal by the use of *E. coli*,
introducing the EB virus genome into an EB virus-negative Akata cell expressing EBNA1, and
cloning a packaging cell carrying an EB virus genome lacking a packaging signal, but not carrying a wild type EB virus genome having packaging signals.

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4. A method for producing an Akata packaging cell introduced with an amplicon plasmid, which is used for producing an EB virus vector without viral replication ability, comprising the step of:

introducing an amplicon plasmid having a packaging signal, but lacking viral
5 replication ability into a packaging cell obtained by the method of any one of claims 1 to 3.

5. A method for producing an EB virus vector without viral replication ability, comprising inducing lytic infection of an Akata packaging cell introduced with
10 amplicon plasmid, which is produced by the method of claim 4, thereby allowing an EB virus vector covered with a virus envelope to be released.

6. A method for producing an immortalized B lymphocyte, comprising inducing lytic infection of an Akata packaging cell introduced with amplicon plasmid,
15 which is produced by the method of claim 4, thereby allowing an EB virus vector covered with a virus envelope to be released, and infecting a B lymphocyte with the resulting EB virus vector.